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Polyclonal Antibody to 6xHistidine Epitope Tag (HHHHHH) - DyLight488

Alternate names: 6xHis-Tag, HHHHHH Tag, HIS6 Tag, His Tag

Catalog No.: R1181DL5

Quantity: 0.1 mg

Concentration: 1.0 mg/ml (by UV absorbance at 280 nm)

Background: Epitope tags are short peptide sequences that are easily recognized by tag-specific antibodies. Due to their small size, epitope tags do not affect the tagged proteins biochemical properties. Most often, sequences encoding the epitope tag are included with target DNA at the time of cloning to produce fusion proteins containing the epitope tag sequence. This allows anti-epitope tag antibodies to serve as universal detection reagents for any tag-containing protein produced by recombinant means. This means that anti-epitope tag antibodies are a useful alternative to generating specific antibodies to identify, immunoprecipitate or immunoaffinity purify a recombinant protein. The anti-epitope tag antibody is usually functional in a variety of antibody-dependent experimental procedures. Expression vectors producing epitope tag fusion proteins are available for a variety of host expression systems including bacteria, yeast, insect and mammalian cells.

Host: Rabbit

Immunogen: Synthetic peptide corresponding to the 6X HIS epitope tag (H-H-H-H-H-H) conjugated to KLH using maleimide

Format:
State: Lyophilized purified Ig
Buffer System: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 10 mg/ml BSA and 0.01% (w/v) Sodium Azide
Label: DyLight488 – DyLight(TM) 488 (MW 1,011.20)
Absorption / Emission: 493 nm / 518 nm
Molar Ratio: 4,0 moles DyLight(TM) 488 per mole of Rabbit IgG
Reconstitution: Restore with 0.1 ml of deionized water (or equivalent).

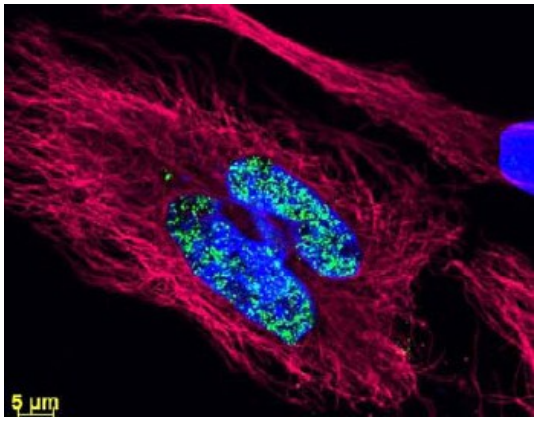
Applications: Western Blot: ›1/20,000.
ELISA ›1/10,000.
Immunofluorescence: ›1/5,000.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody is directed against the 6X His motif.

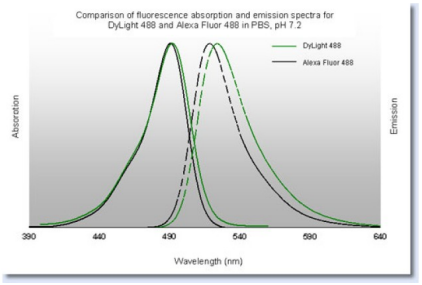
Storage: Prior to reconstitution store at 2-8°C.
Following reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings: Bayer & Wilchek, Methods in Enzymology, 184; 138-160, 1990.

Pictures: DyLight(TM) dyes can be used for multicolor immunofluoresence microscopy with uniform fluorescence intensity throughout the image. DyLight(TM) dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone detection using a DyLight(TM)488 conjugate (green). Anti-Tubulin was detected using a DyLight(TM) 549 conjugate (red). Nuclei were counter-stained using DAPI (blue). The image was captured using an Axio Imager.Z1 (Zeiss Micro Imaging Inc).



DyLight™ 488 Fluorescence Spectra:



Properties of DyLight™ Fluorescent Dyes:

Emission	Color	DyLight™ Dye	Ex/Em (nm)	ε (M^{-1} cm^{-1})	Similar Dyes
Blue		**405**	**400/420**	**30,000**	**Alexa™ 405, Cascade Blue**
Green		488	493/518	70,000	Alexa™ 488, Cy2®, FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3®,TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5®
Near Infrared		680	682/715	140,000	Alexa™ 680, Cy5.5®, IRDye™ 700
Infrared		800	770/794	270,000	IRDye™ 800